

Family Papers Gone Digital: Scanning, Managing, and Preserving

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THE GEORGIA ARCHIVES

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Why Scan?

- Facilitate distribution and access
 - Send images to friends and family
 - Fidelity from one copy to the next
- Websites and publications
 - Articles, family histories
- Protect originals from use and handling
- Future uses; not yet known



Scanning Drawbacks

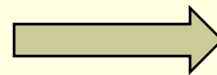
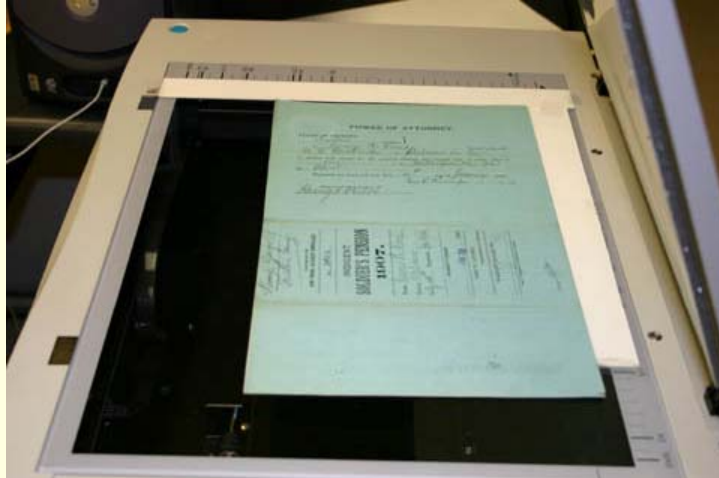
- Rapidly changing technology
- Lack of standards
- Challenges to long term preservation
- Recopying, storage and migration
- Images are not searchable



Imaging Basics

What is digital imaging?

- Conversion of an analog document into binary code through scanning



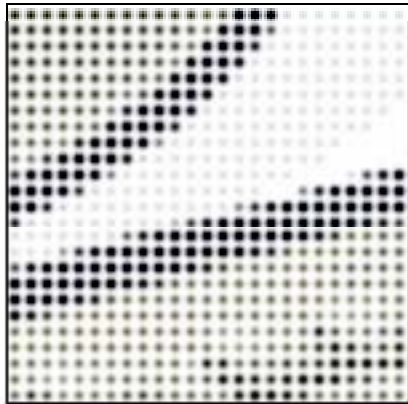
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Imaging Basics

■ Resolution

- The number of pixels used to represent the image. Usually measured in dots per inch (dpi) or pixels per inch (ppi)



Imaging Basics

- Bit Depth (dynamic range)
 - The number of bits (1s and 0s) used to represent each pixel.
 - 1-bit (bitonal)
 - 8-bit (grayscale)
 - 24 bit (color)
 - Increasing bit depth increases the level of gray or color that is represented in the image, and consequently increases file size.



Types of Digital Images

Bitonal

THE STATE COURT OF CHATHAM COUNTY
STATE OF GEORGIA

DEPUTY SHERIFF'S ENTRY OF SERVICE

Case Number: 00 0002F

Cause of Action: Writ of Possession

Plaintiff: Crawford, Gregory & Jennings, L.L.P.
P.O. Box: 5906
Savannah, GA 31416

Defendant: Tom Mitchell
Savannah, GA 31416

NOTICE OF SERVICE ON:
Tom Mitchell
Savannah, GA 31416
(Name and Address of Person Served)

I have this day served the Defendant with a true copy of the within petition and summons, personally with this day of 19 Deputy Sheriff

I have this day served the Defendant with a true copy of the within petition and summons by serving same upon a person duly residing on the premises this day of 19 Deputy Sheriff

I have this day served the Defendant with a true copy of the within petition and summons by handing the same in person to a corporation, with a true copy of the within petition and summons to an officer of said corporation, this day of 19 Deputy Sheriff

I have this day executed the within Affidavit and Sworn to by placing a copy of the within process on the door of the premises designated in said action and also by depositing a true copy thereof in the United States mail in an envelope properly addressed to Defendant at his last known address with sufficient postage affixed, this day of 19 Deputy Sheriff

I have this day at the hour of 10 a.m. served the Summons of Garnishment upon a person, her/his being by handing the original of same to and agent in charge of at the time of service in Chatham County, this day of 19 Deputy Sheriff

This is to certify that I have this day served the Defendant with a copy of the within Affidavit and Summons by depositing a copy thereof in the United States mail, in an envelope properly addressed to Defendant at his last known address as shown in said Affidavit, with adequate postage affixed thereon, this day of 19 Deputy Sheriff

Diligent search made and Defendant is not to be found in the jurisdiction of this court. Subject does not live at above address
this day of June 19 1900 Deputy Sheriff

Grayscale



Color



Protect Originals During Scanning

- Never use a sheet feeder for original or fragile documents
- Items with friable or flaking media should not be scanned on a flat bed scanner
- Don't scan items that are larger than the platen of your scanner on a flatbed – use digital camera
- To pick up a fragile document from the flat bed of a scanner, insert the corner of a scrap piece of paper under the edge of the document. Do not flex a document while turning it over.
- Fragile or damaged items may have to be scanned through a polyester sleeve.



Protect Originals During Scanning

- Books must be scanned by a digital camera or overhead scanner.
- Do not open a book wider than 120 degrees while scanning, it can damage the binding. Make use of book cradles or foam wedges.
- Pages of a book must be turned carefully. Begin by lifting the upper corner of the page and then support the entire page with your hand as it's turned.



Scanning Specifications

- Printed text (rare or damaged)
 - 400-600 dpi for letter size
 - 300 dpi for legal size
- Manuscripts
 - 300-500 dpi for letter size
 - 300 dpi for legal size
 - 300 dpi for maps, plans, graphic arts
- Photo prints
 - 400-600 dpi for 5x7 or 8x10
 - 300 dpi for larger



Equipment

- Match materials you want to scan to the device
 - Documents
 - Photographs
 - Slides and negatives
 - Maps or oversize items
 - Bound materials

- Get the best quality scanner you can afford



Types of Scanners

■ Flatbed

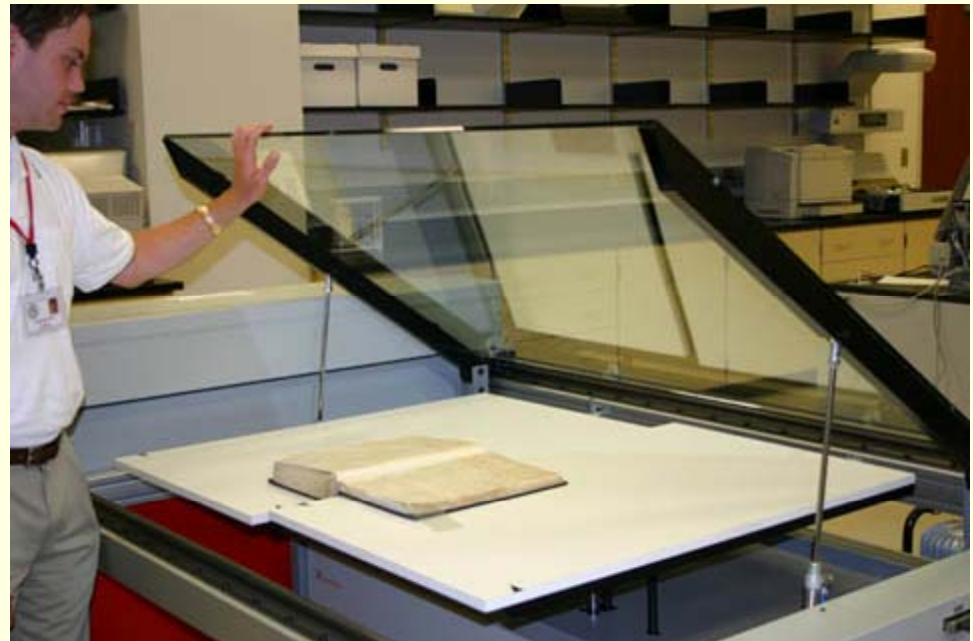
- Most commonly available
 - Can handle reflective and transparent media with special trays
 - Easy to use
 - Can be inexpensive
 - Professional grade models preferred
-
- Avoid sheet feed adapters—will damage fragile documents





Flatbed Scanner

Oversize flatbed scanner



Selecting a Scanner

- Optical resolution: 1200 dpi (uninterpolated)
- Bit depth: 36-48
- Platen size (larger than 8 ½ x 11" get pricey)
- Media adapters (slides, negatives, etc)
- Twain compliant

Tone reproduction is measured by dynamic range



Digital Cameras

- Handle a variety of document types
- Unlimited field size
- Variable resolution
- Less handling of documents required
- Can be very expensive
- Requires operator skill—lighting can be tricky
- SLR (single lens reflex) with a copy stand for best quality results



Software

- Scanning
 - Twain compliant
 - Can effect the quality of your images
 - Calibration software
- Image editing and manipulation
 - Adobe Photoshop Elements
 - Corel Paint Shop Pro
 - Free— Google Picasa, Microsoft Paint.NET v3.10, Apple iPhoto, Serif PhotoPlus 6



File Formats

- Look for open standards with wide support
 - TIFF or RAW for master images
 - JPEG for access and web pages
 - Screen resolution: 72 or 96 dpi
 - Medium quality
 - PDF for multi page images



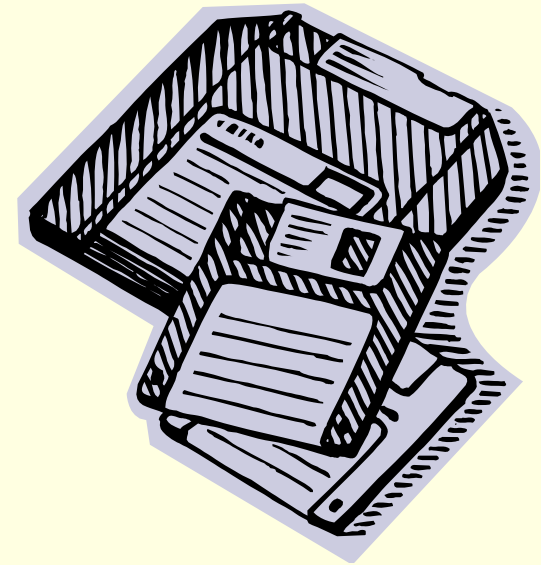
File Naming

- Be consistent. Come up with a scheme and stick with it
- Unique name for each item
- Sequential, if possible
- Use the same name for masters and derivative images
- Incorporate date for digital photos.



Longevity of Digital Files

- No digital storage media is considered archival
 - CDs should be copied every 3-5 years
- File formats become obsolete
- Equipment becomes obsolete
- Unexplained failure



Storing Your Digital Images

- Lots of copies keep stuff safe
- Hard drive
- Backup copies— external hard drive, CD-R or DVD
- Migration – copy images every five years
- Share your images
 - Send copies to friends and relatives
- Print your images



CD-ROMs



- Choose CD-R
 - *(CD-RW can be overwritten)*
- Choose disks with phthalocyanine dye and gold reflective layer
- Avoid bulk disks on spindles--they scratch easily
- Plastic jewel cases better protection than paper sleeves



Storage and Handling of CDs and DVDs

- Store vertically on metal shelves
- 68 degrees F, 30-50%RH
- Dust and dirt-free
- Label hub with alcohol-free marker
 - Don't write on CD with a sharp pen
 - Never place labels on the disk itself
 - Label the case instead



Digital Print Stability

- Professionally printed digital prints are as stable as traditional prints made from negatives.
- Quality and stability of prints from consumer-marketed “photo” ink jet printers can vary widely.



Types of Digital Prints

- Digital photo lab processed prints
 - Fugi Pictography, Kodak Pegasus
- Dye Sublimation
- Electrophotography
 - Laser prints and photocopies
- Inkjet
 - Dye based
 - Pigment based



Preserving Digital Photos

■ Digital Files

- Have several sets of backup images
 - CD-ROMs
 - Online photo archiving sites
- Share your images
- Periodically refresh your images
 - Re-copy CDs every 3-5 years
- Migrate data to new hardware or transfer photos from old storage devices.



Preserving Digital Photos

■ Storing Prints

- Use a professional lab to make prints
- Store prints in a stable environment
 - Control temperature and moisture
 - Limit exposure to light
- Avoid sources of water near storage area



Preserving Digital Photos

■ Storing Prints

- Choose storage containers that protect from dust, light and physical damage
- Stable albums are a good option
 - Materials must meet the PAT test
 - Papers should be acid-free, lignin-free and buffered
 - Safe plastics: polyester, polypropylene, polyethylene, and polystyrene



For More Information

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The Georgia Archives